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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,443	10/15/2003	Joe Reyes	H0004247	8789

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EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/687,443

Applicant(s)

REYES, JOE

Examiner

Marivelisse Santiago-Cordero

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Art Unit – Location***

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/12/06 has been entered.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

4. Claims 9-11 are objected to because of the following informalities: the term "circuits" (Claim 9, line 2) should be replaced with --circuit--; and the term "system" (Claim 11, line 3) should be replaced with --apparatus--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 2617

6. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding independent claims 1, 7, and 12, the limitations “such that the one or more of the radios is operable via the other PTT switches”, “such that the selected radio transmitter is operable via the other PTT switches”, and “without disabling the one or more radio transmitters”, respectively, were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does disclose that the status of **other** PTT switches and radios are not affected (Abstract; paragraphs [0005]-[0006]); however, this is different from what is being claimed, since the one or more radios claimed are the ones previously selected, i.e., not “other” radios. Applicant is welcomed to point out where in the specification the Examiner can find support for these limitations, if Applicant believes otherwise.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the other PTT switches" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim since only one PTT switch is claimed before. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Arndt et al. (hereinafter "Arndt"; Patent No.: 4,932,071).

Regarding claim 12, Arndt discloses in a communication system having one or more push-to-talk (PTT) switches that each have at least an ON position and an OFF position, and one or more radio transmitters that may be selectively coupled to receive a signal representative of each PTT switch position, a method for dealing with a STUCK-ON condition of a PTT switch, the method comprising the steps of:

determining whether a PTT switch is in the STUCK-ON condition (col. 7, lines 52-55);  
and

if so, inhibiting the signal representative of the position of the PTT switch that is in the STUCK-ON condition from being received by each radio transmitter without affecting the activity of other PTT switches available to be coupled to the one or more radio transmitters and without disabling the one or more radio transmitters (Abstract; col. 4, lines 24-27; co. 7, lines 4-9; col. 11, lines 1-9; col. 12, lines 5-13).

Regarding claim 13, Arndt discloses wherein the step of determining whether the PTT switch is in the STUCK-ON condition comprises determining that the PTT switch has been in the ON position for a predetermined period of time (col. 5, lines 22-27; col. 7, lines 52-63).

Regarding claim 14, Arndt discloses further comprising the step of turning on an ALARM to notify a user that the STUCK-ON condition has occurred (Abstract; col. 4, lines 32-35).

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3-7, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arndt in view of Corrigan (GB 2198912).

Regarding claim 1, Arndt discloses an aircraft communication system, comprising:

a plurality of radios (Fig. 5; col. 1, lines 10-13));

a plurality of push-to-talk (PTT) switches (col. 1, lines 10-13 23-28), each PTT switch having at least an ON position and an OFF position (col. 1, lines 23-28) and configured to supply an ON/OFF signal representative of the position of the PTT switch (col. 1, lines 23-28);

[a controller] (Figs. 2 and 5) in operable communication with each radio (Fig. 5) and coupled to receive the ON/OFF signal from each PTT switch (Fig. 2; note that only one PTT is shown here, but typically there are two or more radios each having a PTT switch (col. 1, lines 10-28)), the controller configured, in response to the ON/OFF signal, to (i) selectively enable one

Art Unit: 2617

or more of the radios to transmit (col. 6, lines 41-46) (ii) determine whether each PTT switch is stuck in the ON position (col. 7, lines 52-55), and (iii) when a PTT switch is stuck in the ON position, to deselect the stuck PTT switch (col. 7, lines 56-64) without affecting the activity of other PTT switches available to be coupled to the plurality of the radios such that the one or more of the radios is operable via the other PTT switches (Abstract; col. 4, lines 24-27; col. 7, lines 4-9; col. 11, lines 1-9; col. 12, lines 5-13).

Arndt fails to specifically disclose a controller.

However, in the same field of endeavor, Corrigan discloses an aircraft communication system (page 1, lines 1-5) a controller (Fig. 3; Abstract) in operable communication with each radio (Fig. 3, reference 100) and coupled to receive the ON/OFF signal from each PTT switch (Fig. 3, reference 102).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate the circuitry of Arndt in a controller as suggested by Corrigan for the advantages of making integral by placing under a single housing, being simpler, reducing the size.

Regarding claim 3, in the obvious combination, Arndt discloses further comprising: one or more timer circuits, each timer circuit configured to supply a time signal when at least one of the PTT switches is in the ON position (col. 5, lines 22-27), wherein the controller determines that a PTT switch is stuck in the ON position, a time signal indicates the PTT switch has been in the ON position for at least a predetermined time value (col. 5, lines 22-27; col. 7, lines 52-63).

Regarding claim 4, in the obvious combination, Arndt discloses further comprising: a memory circuit in operable communication with the controller (col. 5, lines 22-28), the memory

circuit having at least the predetermined time value stored therein (col. 5, lines 22-28; note that it is well known for any ordinary skill in the art that a capacitor has a predetermined time value stored within that permits it enough time to get filled with energy and to discharge).

Regarding claim 5, in the obvious combination, Arndt discloses further comprising: a plurality of selection switches coupled to the controller, each selection switch configured to supply a radio selection signal (Fig. 5, reference 186; col. 12, lines 5-13), wherein the controller is further configured, in response to the radio selection signal, to determine which of the radios to selectively enable to transmit (Fig. 5, reference 186; col. 12, lines 5-13).

Regarding claim 6, in the obvious combination, Arndt discloses wherein the controller is further configured to supply an alarm signal when a PTT switch is determined to be stuck in the ON position (col. 4, lines 32-35), wherein the system further comprises: an aircraft display unit (ADU) in operable communication with the controller and configured to supply an alarm upon receipt of the alarm signal (Abstract).

Regarding claim 7, Arndt discloses an apparatus for handling a STUCK-ON condition of a push-to-talk (PTT) switch coupled to a plurality of radio transmitters (Fig. 5; col. 1, line 66 through col. 12, line 13), comprising:

a PTT switch configured to supply a PTT ON/OFF signal (Figs. 1 and 5, reference 18; col. 1, lines 23-28; col. 6, lines 42-48);

a plurality of selection switches, each selection switch configured to supply a radio selection signal (Fig. 5, reference 186; col. 12, lines 5-13);

[a controller] (Figs. and 5) coupled to the PTT switch, each of the selection switches, and each of the radio transmitters (Fig.5), and configured to:



(i) receive the PTT ON/OFF signal and the radio selection signal from each selection switch (Figs. 2 and 5; col. 12, lines 5-13);

(ii) select one of the radio transmitters based on the radio selection signal (col. 6, lines 41-46; col. 12, lines 5-13);

(iii) determine whether the PTT switch is stuck in the STUCK-ON condition (col. 7, lines 52-55);

(iv) until the STUCK-ON condition occurs, supply either a TRANSMIT or a STANDBY command to the selected radio transmitter based on the PTT switch ON/OFF signal (col. 1, lines 23-29; col. 6, lines 45-48), to thereby cause the selected radio transmitter to transmit or not transmit, respectively (col. 1, lines 23-29; col. 6, lines 45-48); and

(v) when the STUCK-ON condition occurs, ignore the stuck PTT switch ON/OFF signal (col. 7, lines 56-64) and place the selected radio transmitter in STANDBY (col. 7 lines 52-64) without affecting the activity of other PTT switches available to be coupled to the selected radio transmitter such that the selected radio transmitter is operable via the other PTT switches (Abstract; col. 4, lines 24-27; col. 7, lines 4-9; col. 11, lines 1-9; col. 12, lines 5-13).

Arndt fails to specifically disclose a controller.

However, in the same field of endeavor, Corrigan discloses apparatus for handling a STUCK-ON condition of a push-to-talk (PTT) switch coupled to a plurality of radio transmitters comprising a controller (Fig. 3; Abstract) coupled to the PTT switch (Fig. 3, reference 102) and each of the radio transmitters (Fig. 3, reference 100).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate the circuitry of Arndt in a controller as suggested by

Art Unit: 2617

Corrigan for the advantages of making integral by placing under a single housing, being simpler, reducing the size.

Regarding claim 11, in the obvious combination, Arndt discloses wherein the controller is further configured to supply an alarm signal when a PTT switch is determined to be stuck in the ON position (col. 4, lines 32-35), wherein the system further comprises: an aircraft display unit (ADU) in operable communication with the controller and configured to supply an alarm upon receipt of the alarm signal (Abstract).

Regarding claim 15, Arndt discloses an audio panel, comprising:

[a controller] (Figs. 1 and 5) adapted to receive an ON/OFF signal from each of a plurality of push-to-talk (PTT) switches having at least an ON position and an OFF position (col. 1, lines 10-13 23-28), the controller configured, in response to the ON/OFF signals, to (i) selectively supply one or more radio enable signals (col. 6, lines 41-46) (ii) determine whether each PTT switch is stuck in an ON position (col. 7, lines 52-55), and (iii) when a PTT switch is stuck in the ON position, to deselect the stuck PTT switch (col. 7, lines 56-64) without affecting the activity of other PTT switches and without disabling one or more of the radios available to be coupled to the plurality of PTT switches (Abstract; col. 4, lines 24-27; col. 7, lines 4-9; col. 11, lines 1-9; col. 12, lines 5-13).

Arndt fails to specifically disclose a controller.

However, in the same field of endeavor, Corrigan discloses an aircraft communication system (page 1, lines 1-5) a controller (Fig. 3; Abstract) in operable communication with each radio (Fig. 3, reference 100) and coupled to receive the ON/OFF signal from each PTT switch (Fig. 3, reference 102).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate the circuitry of Arndt in a controller as suggested by Corrigan for the advantages of making integral by placing under a single housing, being simpler, reducing the size.

13. Claims 2 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arndt in combination with Corrigan (hereinafter "Arndt/Corrigan") as applied to claims 1 and 7 above, and further in view of Clark et al. (hereinafter "Clark"; cited in form PT0-892, paper no. 20050920).

Regarding claims 2 and 8, Arndt/Corrigan disclose the system of claim 1 and the apparatus of claim 7 (see above). Arndt/Corrigan fail to disclose further comprising: an input buffer coupled between each PTT switch and the controller and configured to supply the buffered ON/OFF signals to the controller.

However, Clark discloses an input buffer coupled between each PTT switch and the controller and configured to supply the buffered ON/OFF signals to the controller (col. 6, lines 50-65).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate an input buffer coupled between each PTT switch and the controller of Arndt/Corrigan and configured to supply the buffered ON/OFF signals to the controller as suggested by Clark for the advantages of enabling a clean input signal to be applied to the controller and supplying the properly conditioned input signals indicating which one of the PTT switches has been depressed (Clark: col. 6, lines 50-65).

Art Unit: 2617

Regarding claim 9, in the obvious combination, Arndt discloses further comprising: a timer circuits configured to selectively supply a time signal (col. 5, lines 22-27), wherein the controller determines that the STUCK-ON condition occurs when the time signal exceeds a predetermined time value (col. 5, lines 22-27; col. 7, lines 52-63).

Regarding claim 10, in the obvious combination, Arndt discloses further comprising: a memory circuit in operable communication with the controller (col. 5, lines 22-28), the memory circuit having at least the predetermined time value stored therein (col. 5, lines 22-28; note that it is well known for any ordinary skill in the art that a capacitor has a predetermined time value stored within that permits it enough time to get filled with energy and to discharge).

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Foster et al. (Patent No.: US 4,366,578) discloses an arrangement for preventing inadvertent transmission by a PTT switch; Teetor (Patent No.: 4,833,725) discloses an unintentional radio transmission detection system; and James (Patent No.: 6,963,743) discloses an audio panel with wireless telephone input for providing wireless calling capabilities without affecting other communication functions of the audio panel.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSC 8/11/06

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